

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1 (Original): A thin-film piezoelectric resonator comprising:
a piezoelectric thin film having piezoelectric characteristic; and
an upper electrode and a lower electrode arranged on opposite surfaces of said piezoelectric thin film for applying an excitation voltage to said piezoelectric thin film,
wherein each of said upper electrode and said lower electrode includes a resonant portion and a lead-out portion, and
an electrode thickness of at least one part of said lead-out portion in at least one of said upper electrode and said lower electrode is larger than an electrode thickness of said resonant portion formed to be continued from said lead-out portion.

2 (Currently Amended): A thin-film piezoelectric resonator comprising:
a piezoelectric thin film having piezoelectric characteristic;
an upper electrode and a lower electrode arranged on opposite surfaces of said piezoelectric thin film for applying an excitation voltage to said piezoelectric thin film; and
ground electrodes arranged on the same plane with at least one of said upper electrode and said lower electrode and not opposing either of said upper electrode or said lower electrode,
wherein each of said upper electrode and said lower electrode includes a resonant portion and a lead-out portion, and
an electrode thickness of at least one part of each of said ground electrodes is larger

than an electrode thickness of said resonant portion in one of said upper electrodes and said lower electrode which is formed on the same plane with said ground electrodes.

3 (Original): A thin-film piezoelectric resonator comprising:
a piezoelectric thin film having piezoelectric characteristic; and
an upper electrode and a lower electrode arranged on opposite surfaces of said piezoelectric thin film for applying an excitation voltage to said piezoelectric thin film,
wherein each of said upper electrode and said lower electrode includes a resonant portion and a lead-out portion, and
said lead-out portion in at least one of said upper electrode and said lower electrode is different in electrode material from said resonant portion formed to be continued from said lead-out portion.

4 (Original): A thin-film piezoelectric resonator according to Claim 3, wherein at least one part of said lead-out portion is formed by stacking layers with different electrode materials, where one of said stacked electrode is formed to be continued from said resonant portion.

5 (Original): A thin-film piezoelectric resonator according to any one of Claims 1 through 4, wherein said piezoelectric thin film had a thickness of not larger than 5 μm .

6 (Currently Amended): A filter including ~~at least one~~ a thin-film piezoelectric resonator ~~defined in any one of Claims 1 through 4~~ comprising:

a piezoelectric thin film having piezoelectric characteristic; and
an upper electrode and a lower electrode arranged on opposite surfaces of said piezoelectric thin film for applying an excitation voltage to said piezoelectric thin film,
wherein each of said upper electrode and said lower electrode includes a resonant portion and a lead-out portion, and
an electrode thickness of at least one part of said lead-out portion in at least one of said upper electrode and said lower electrode is larger than an electrode thickness of said resonant

portion formed to be continued from said lead-out portion.

7 (Currently Amended): A duplexer including ~~at least one~~ a thin-film piezoelectric resonator ~~defined in any one of Claims 1 through 4 comprising:~~

a piezoelectric thin film having piezoelectric characteristic; and

an upper electrode and a lower electrode arranged on opposite surfaces of said

piezoelectric thin film for applying an excitation voltage to said piezoelectric thin film,

wherein each of said upper electrode and said lower electrode includes a resonant portion and a lead-out portion, and

an electrode thickness of at least one part of said lead-out portion in at least one of said upper electrode and said lower electrode is larger than an electrode thickness of said resonant portion formed to be continued from said lead-out portion.

8 (Currently Amended): A method of fabricating a thin-film piezoelectric resonator including a piezoelectric thin film having piezoelectric characteristic, and an upper electrode and a lower electrode arranged on opposite surfaces of said piezoelectric thin film for applying an excitation voltage to said piezoelectric thin film, said method comprising the step of:

~~forming~~ forming said lower electrode and said upper electrode, at least one of forming step of said upper electrode and said lower electrode including at least two thin film-forming and patterning processes, wherein a mask used in the first patterning process is different in shape from a mask used in the second patterning process or in the patterning process after the second patterning process,

said forming producing for at least one of the upper electrode and the lower electrode a resonant region and a lead-out portion extending from the resonant portion, said lead-out portion having an electrode thickness different from that of the resonant portion.